

REMARKS

Claims 1-19 are pending in this application. In this Response, Applicants have provided remarks that explain some of the differences between the present invention and the references cited by the Examiner. In light of these differences, Applicants submit that the Examiner's rejections have been overcome.

THE DOUBLE PATENTING REJECTION

At page 2 of the Office Action, the Examiner rejected claims 1, 9, and 15 under the judicially created doctrine of obviousness-type double patenting as being obvious over claim 37 of co-pending Application No. 10/861,441. In order to facilitate allowance, Applicants submit herewith a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) in order to overcome the double patenting rejection. As such, Applicants respectfully request that the double patenting rejection be withdrawn.

THE REJECTIONS UNDER 35 U.S.C. § 112

At page 3 of the Office Action, the Examiner rejected claims 2-3 and 9-14 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner stated that the written description does not disclose sufficient information to enable one skilled in the art to make sure that automatic identification of golf clubs or golf balls takes place in less than 6 seconds or one second. *See* Office Action at page 3.

The written description of the present application, however, states that it is desirable to use a mathematical algorithm that is able to identify and match a pattern rapidly from a large list of stored patterns. *See* Written Description at Page 8, lines 18-21. To enable a skilled artisan to practice the invention disclosed in the present application without undue experimentation, Applicants provided a further explanation of exemplary manners by which the rapid pattern matching can be achieved. Specifically, a spatial Eigen value algorithm may be used to rapidly match patterns. *See, e.g.,* Written Description at Page 8, line 29 - Page 9, line 3. Another example of an algorithm that may be used is a least square spatial error matching algorithm. *See, e.g.,* Written Description at Page 9, lines 4-8.

These explicit examples, in combination with the entirety of the disclosure, sufficiently enable a skilled artisan to practice the present invention. As such, Applicants submit that the

Examiner's § 112 rejection has been overcome. Reconsideration and withdrawal of the rejection is respectfully requested.

THE REJECTIONS UNDER 35 U.S.C. § 102

At pages 3-5 of the Office Action, the Examiner rejected claims 1-3, 7, 9, and 15-16 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2001/0029207 to Cameron *et al.* ("Cameron"). For at least the reasons set forth below, Applicants submit that the Examiner's rejection has been traversed.

Cameron discloses an apparatus and method that analyzes a golfer's individual swing attributes and determines, based on the analysis, a suitable golf club configuration for that particular golfer. *See* Abstract. The apparatus obtains images from video cameras during a golfer's swing, and then uses the acquired images to analyze the swing characteristics. *Id.* By analyzing the golfer's swing characteristics, the dimensions of the golf club may be modified to compensate for errors in the golfer's swing. *Id.* To allow the swing characteristics to be analyzed, Cameron analyzes the images of the golf club by using an angle function to compute the precise angles of the face of the club. *See, e.g.,* Para. 0036. Cameron does not use the images to determine the identity of the golf club.

For example, a golfer initially begins with a putter that has a 4° loft. *See* Para. 0026. Ideally, a golfer using a perfect swing will impart no forward or rearward press during the stroke. *Id.* Thus, a golfer using the perfect swing will cause the putter to have a 4° loft at impact. *Id.* If, however, the golfer does not have a perfect swing, the angle of the club may be different than 4°. *See, e.g.,* Para. 0038. The different angle at impact, which is determined by analyzing the images of the club, would indicate that the golfer has a forward or rearward press at impact. *Id.* In order to compensate for the forward or rearward press, Cameron customizes a putter according to this information, *i.e.,* increases or decreases the angle of the putter, to allow a golfer to strike a golf ball in the correct manner. *Id.*

In contrast, one embodiment of the present invention comprises a method for automatically identifying a plurality of golf clubs and golf balls. *See, e.g.,* Claim 1. The method comprises storing image reference information for each of the plurality of golf clubs and golf balls. *Id.* Then, an image of at least one of the ball or club is acquired during a swing. *Id.* The golf and/or club is then automatically identified based on a comparison to the image reference information. *Id.*

In other words, the present invention is directed to acquiring a reference image of a golf club and/or golf ball. Then, when the golf club and/or golf ball is swung by a golfer, the present invention allows the images of the golf club and/or ball acquired during the swing to be compared to the reference images. In this manner, the golf club and/or golf ball may be automatically identified. Cameron, however, is completely silent with regard to comparing an acquired image of a golf club and/or golf ball to a reference image of a golf club and/or golf ball in order to determine its identity. In fact, Cameron is completely silent with regard to comparing images for any purpose, and the sections of Cameron cited by the Examiner fail to disclose any such feature. Instead, Cameron acquires images of a golf club in order to analyze its swing characteristics so that a club can be customized for a golfer. *See, e.g.,* Para. 0026.

In sum, Cameron does not teach each and every element of independent claims 1, 9, and 15. In particular, Cameron is deficient at least with respect to automatically identifying a club or ball based on a comparison of an image of the club or ball to a stored reference image. Applicants further submit that claims 2-8, 10-14, and 16-19 are in condition for allowance at least by virtue of their dependency from claims 1, 9, and 15, but also for additional novel features recited therein. As such, reconsideration and allowance of the pending claims is respectfully requested.

THE REJECTIONS UNDER 35 U.S.C. § 103

At pages 5-6 of the Office Action the Examiner rejected claims 4-6, 10-13, and 17-18 under 35 U.S.C. § 103(a) as being obvious over Cameron in view of U.S. Patent No. 7,184,569 to Lawandy *et al.* ("Lawandy"). In addition, the Examiner rejected claims 8 and 14 under 35 U.S.C. § 103(a) as being obvious over Cameron in view of U.S. Patent No. 6,519,545 to Amano ("Amano"). Finally, claim 14 was rejected under 35 U.S.C. § 103(a) as being obvious over Cameron in view of U.S. Patent Publication No. 2001/0029207 to Cameron *et al.* ("Cameron '207").

However, neither Lawandy, Amano, nor Cameron '207 cure the deficiencies of Cameron, *i.e.*, none of the references teach automatically identifying a club or ball based on a comparison of an image of the club or ball to a stored reference image. Thus, for at least the reasons stated above with respect to the § 102 rejections, Applicants submit that the Examiner's § 103 rejections have also been overcome. Reconsideration and allowance of the pending claims is respectfully requested.


CONCLUSION

All claims are believed to be in condition for allowance. If the Examiner believes that the present remarks still do not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned attorneys to discuss any remaining issues.

A Petition for Extension of Time is submitted herewith to extend the time for response one month to and including August 2, 2007. A Fee Sheet Transmittal is submitted herewith to pay for the three month extension of time. No other fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Bingham McCutchen LLP Deposit Account No. 50-4047, Order No. 20002.0328.

Respectfully submitted,
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